# TAR CREEK (OTTAWA COUNTY)

# **EPA REGION 6 CONGRESSIONAL DISTRICT 02**

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**Updated: September 2006** 

**OKLAHOMA** 

EPA ID# OKD980629844 Site ID: 0601269

**Current Status** 

### **OU1 (Surface Water/Groundwater)**

- The 3<sup>rd</sup> Five Year Review was completed in September 2005 and is available on EPA's website.
- EPA is funding the ODEQ to monitor ground water in the Roubidoux aguifer; groundwater monitoring activities are on-going.

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# **OU2 (Residential Properties)**

- As of January 5, 2006, 2,179 residential yards and public areas have been remediated since the inception of cleanup in Quapaw, Cardin, Picher, Commerce, and North Miami. Work on the final 100 properties in Commerce began in December of 2005. Completion of these final 100 properties is expected by the end of 2006.
- The EPA is funding ATSDR and Ottawa County Health Department (OCHD) to provide community health education and blood lead screening for the five-city mining area. The OCHD also works with local health professionals including Indian Health Service physicians to provide education to the medical community.
- October 2004, Report To Congress by the Agency for Toxic Substances and Disease Registry (ATSDR). This report shows that children between the ages of 1 and 5 living at the Tar Creek site who had a blood lead level in excess of the 10ug/dL level decreased from 31.2% in 1996 to 2.8% in 2003. The 2.8% level is only slightly higher than the findings of the National Health and Nutrition Examination Surveys (NHANES) for children living in the United States as a whole, which stands at 2.2% for children between the ages of 1 and 5 during the years 1999-2000.

#### OU4 (Chat Piles, Mine and Mill Waste, Smelter Waste, and Flotation Ponds)

- The development of the draft Feasibility Study is ongoing.
- Meetings between EPA, the Quapaw Tribe and ODEQ on site activities are being conducted as needed. All parties continue to participate in the principles Memorandum of Understanding meetings that are hosted by the U.S. Army Corps of Engineers.

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#### **OU5 (Sediment and Surface Water)**

 EPA Region 6 is working with EPA Region 7 as part of multi-state effort to characterize sediment and surface water throughout the Spring and Neosho River basins. Sampling was conducted in the river basins on May 1 − 5, 2006. The results from the sampling are expected to be available by October 2006.

# Memorandum of Understanding (MOU) Activities

Representatives from the various tribes, USACE, USGS, BIA, EPA, and ODEQ are conducting
multiple meetings, in order to share information and keep parties abreast of pilots and studies that
are being pursued in and around the site.

#### Benefits -

The cleanup of lead-contaminated soils from over 2,000 residential yards and high access areas located within the five-city mining area has significantly reduced the exposure of the population, especially young children.

- October 2004, Report To Congress by the Agency for Toxic Substances and Disease Registry (ATSDR). This report shows that children between the ages of 1 and 5 living at the Tar Creek site who had a blood lead level in excess of the 10ug/dL level decreased from 31.2% in 1996 to 2.8% in 2003. The 2.8% level is only slightly higher than the findings of the National Health and Nutrition Examination Surveys (NHANES) for children living in the United States as a whole, which stands at 2.2% for children between the ages of 1 and 5 during the years 1999-2000.
- Abandoned well plugging has reduced the potential for contaminants in the shallow Boone Aquifer to migrate to the Roubideax drinking water aquifer.

# National Priorities Listing (NPL) History -

Site Hazard Ranking System Score: 58.15

Proposed Date: 7/27/1981 Final Date: 9/08/1983

Location: The Tar Creek Superfund Site (hereinafter "the Site") is part of the Tri-State Mining

District, which includes northeastern Oklahoma, southeastern Kansas, and southwestern Missouri. Specifically, the Site includes the Old Picher Field lead and zinc mining area

located in northeastern Ottawa County.

Population: Approximately 19,556 people live in the surrounding area.

Setting: The Site consists of five mining cities, Picher, Cardin, Quapaw, Commerce, and North

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Miami, and other areas within Ottawa County. Chat piles are located throughout the

communities.

Principal Pollutants: Lead, cadmium, and zinc.

#### **Health Considerations:**

- Lead-contaminated soils and chat piles are a source of exposure to the population, especially to
  young children. A percentage of young children living in the five-city mining area are known to
  have blood lead levels in excess of the 10 g/dL (micrograms per deciliter) standard set by the
  Center for Disease Control (CDC). The percentage of children with elevated blood lead levels
  remain well above state and national averages.
- Children are the most sensitive population for lead exposures. Chronic exposure can
  deleteriously affect the immune system, blood system, nervous system, and kidneys. Harmful
  effects include premature births, smaller babies, decreased mental ability in the infant, learning
  difficulties, and reduced growth in young children.

# Record of Decision (ROD)—

Operable Unit 1: ROD signed on June 6, 1984

Operable Unit 2: ROD signed on August 27, 1997

The OU1 ROD addressed (1) the surface water degradation by the discharge of acid mine water, and (2) the threat of contamination of the Roubidoux Aquifer, the regional water supply, by downward migration of acid mine water from the overlying Boone Aquifer through abandoned wells connecting the two. Recharge was to be prevented by utilizing diking and diversion structures to stop the surface water of Tar Creek from entering the two collapsed mine shafts in Kansas, which were identified as the main inflow points. Additionally, the remedy called for preventing the downward migration of acid mine water into the Roubidoux Aquifer by plugging 66 abandoned wells. During remediation, an additional 17 wells were identified and addressed, bringing the total to 83 wells. Construction activities were concluded on December 22, 1986. (Additional information about this ROD is located on the Internet at: <a href="https://www.epa.gov/superfund/sites/rodsites/0601269.htm">www.epa.gov/superfund/sites/rodsites/0601269.htm</a>.)

The OU2 ROD addressed the residential areas. Construction continues on the residential yard cleanups. The full text for this ROD is located on the Internet at: www.epa.gov/earth1r6/6sf/6sf-decisiondocs.htm

#### Site Contacts

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